



ROUTE CONCEPT REPORT

ROUTE 101 CORRIDOR

01-MEN-101-KP R0.2/T171.9 (PM R0.1/T106.8)
01-HUM-101-KP T0.0/R220.6 (PM T0.0/R137.1)
01-DN-101-KP M0.0/74.8 (PM M0.0/46.5)

All information in this Route Concept Report is subject to change as conditions change and new information is obtained.

I approve this Route Concept Report as an analysis and conceptual long-range guide for Caltrans, our Regional Planning Partners, local entities, and the public.



Approval Recommended:

 10/21/02


CHARLIE FIELDER Date
Deputy District Director
Program/Project Management

Approval Recommended:

 10/11/02

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Approved:

 10/25/02

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District Director
District 1

OCTOBER 2002

ROUTE 101 RCR
ROUTE CONCEPT REPORT

Statement of Planning Intent

The Route Concept Report (RCR) is a planning document which describes the Department's conceptual improvement options for a given transportation route or corridor. Considering reasonable financial constraints and projected travel demand over a 20-year planning period, the RCR considers transportation facility needs for each route or corridor. The RCR is a tool for implementing interregional and statewide continuity of the State's transportation network, and will be updated as needed as conditions change, or new information is obtained.

Purpose of the Route Concept Report

The objective of the RCR is to have local, regional, and state consensus on route or corridor concepts, improvement goals, and strategies. This document provides concept information only and does not determine policy nor establish a course of action. Route Concept Reports are prepared by District staff in cooperation with local and regional agencies.

Assumptions

The following assumptions form the basis for the development of Route Concept Reports:

1. The relative importance of State highways in the District is generally based on functional classification. In general, higher priority is given to major improvements on principal arterial routes as compared to minor arterials and collectors.
2. State highways with improvement concepts must have realistic concept levels of service. Concept levels of service are not established on State highways that will only be maintained (since improvements would not be made to address level of service concerns).
3. Levels of service calculations are based on the 2000 Highway Capacity Manual (see Appendix "A").
4. Determinations of future levels of service for State highways in District 1 are based in part upon Statewide and regional forecasts of State highway travel developed by Caltrans.
5. Route concepts generally apply to an entire route or corridor, unless there are overriding considerations (e.g. a major change in function along the route or feasibility concerns).
6. Major projects will be developed to meet design standards acceptable to the Federal Highway Administration in order to receive Federal funding for projects. Otherwise, a "design exception" must be secured during the project development process.
7. Safety projects will be pursued on an on-going basis in order to be responsive to safety concerns as they are identified.
8. No planned or programmed improvements were assumed to be complete in analyzing present and future operating conditions. The Route Concept Report details programmed improvements in the 2000 STIP.
9. Environmental documents are not required for Route Concept Reports. Individual improvement projects identified in Route Concept Reports will follow established environmental processes when development is proposed as required by law.

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01-MEN-101-KP R0.0/T171.9 (PM R0.0/T106.8)

01-HUM-101-KP T0.0/R220.7 (PM T0.0/R137.1)

01-DN-101-KP M0.0/74.8 (PM M0.0/46.5)

I. ROUTE CONCEPT AND RATIONALE

FACILITY CONCEPT

- The Concept for Route 101 from the Sonoma/Mendocino County line to Big Lagoon in Humboldt County is a four-lane freeway/expressway¹ (MEN-101-KP R0.0/HUM-101-KP 176.4 (MEN-101 PM R0.0/HUM-101-PM 109.4)), with two exceptions where the concept is to retain existing facilities for the segments from Leggett to Red Mountain Creek in Mendocino County (MEN-101-KP R145.5/R162.7 (PM R90.4/R101.1)) and from Richardson Grove to Smith Point Bridge in Humboldt County (HUM-101-KP T0.0/R9.0 (PM T0.0/R5.6)).
- The Concept for Route 101 from Big Lagoon in Humboldt County through the City of Crescent City to the Washington Boulevard Interchange in Del Norte County is to retain the existing facilities, HUM-101-KP 176.0/DN-101-KP 44.4 (HUM-101-PM 109.4/DN-101-PM 27.6)). Some realignment may be necessary to bypass unstable areas.
- From the Washington Boulevard Interchange to the California/Oregon border the concept is four-lane freeway/expressway. However, it is recognized that a four-lane freeway/expressway may not be necessary within the near 20-year period. (DN-101-KP 44.4/74.8 (PM 27.6/46.5))

Route 101 is the economic lifeline of the north coast and the most important route in the District.² It is a principal arterial serving interregional and interstate traffic, with relatively high traffic volumes and heavy use by both truck and tourist traffic.

The District recognizes that much of Route 101 cannot be developed to ultimate standards within 20 years without significantly increased revenues. Nevertheless, Route improvements should be directed toward achievement of this concept. Improvements will have to be deferred on some segments over the 20-year period, depending upon many factors, including available revenues, and competing priorities along the route and other routes in the District, environmental concerns, and local/regional priorities.

¹ Portions of this segment of Route 101 in densely populated areas (e.g. Eureka) could require six lanes, depending on traffic projections at the time of construction.

² The Del Norte County Local Transportation Commission considers Route 199 as the route that contributes most to the economic well being of Del Norte County.

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LEVEL OF SERVICE CONCEPT

The preferred Level of Service for Route 101 is "C" for four-lane segments in rural areas, and "D" for urban areas and two-lane segments in rural areas.

ROUTE CONCEPT FUNCTION

This Route Concept will serve as a conceptual long-range planning guide for route improvements. It recognizes financial considerations and competing priorities on this route and other routes in the District. Consideration of local and regional concerns regarding route development obtained in public outreach efforts and through local planning efforts has been incorporated into this report. Further, the concept is consistent with the Caltrans District 4 concept for Route 101 at the Southern District boundary (adjacent to Sonoma County), and has been shared with the Oregon Department of Transportation.

ROUTE CONCEPT PUBLIC PROCESS

Caltrans District 1 held public meetings in cooperation with the Regional Transportation Planning Agencies and their Technical Advisory Committees (Del Norte County Local Transportation Commission (DNLTCO), Humboldt County Association of Governments (HCAOG), and Mendocino Council of Governments (MCOG)) to solicit comments on the existing route concept for Route 101 in District 1. Additional meetings regarding two long-standing projects, the Richardson Grove Bypass and the Leggett to Red Mountain Creek Bypass were held to receive public input on the future of these projects. Feasibility Studies were prepared for these two projects incorporating the information received at the open house meetings, and shared with Regional Transportation Planning Agencies. The Feasibility Studies concluded that the two above noted long-standing projects were not feasible to construct within the 20-year horizon of the RCR due to potential environmental impacts and cost. Based on comments and the conclusions reached in the Feasibility Studies, revisions were made to this Route Concept Report.

II. ROUTE MANAGEMENT STRATEGIES

REHABILITATION STRATEGY

The four-lane Freeway/Expressway sections of Route 101 should be maintained and rehabilitated as necessary at the present width. Where feasible, two-lane conventional sections should be widened as necessary with pavement rehabilitation projects to comply with Caltrans design standards.

Where current Annual Average Daily Traffic (AADT) volumes are 3,000 to 6,000 vehicles per day, Caltrans design standards specify a desirable minimum roadway of 40 feet, but do allow rehabilitation at the present width if the roadway is at least 28 feet wide. A majority of the two-lane portions of Route 101 fall within this AADT range and have minimum widths of at least 28 feet. A design exception for width must be requested if the roadway does not meet the minimum width requirement, and physical, financial, or environmental considerations preclude widening. However, if feasible, shoulder widening to accommodate non-motorized traffic should be provided.

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Where traffic volumes exceed 6,000 vehicles per day, the desirable minimum width required by Caltrans design standards for two-lane roads is 40 feet, and the roadway rehabilitation minimum width is 32 feet. Existing two-lane segments with AADTs in this range are generally in compliance with this width standard.

Protective betterments which include non-capacity increasing improvements such as tieback walls, reinforcing the toe of slopes, or realignments will be necessary at unstable areas including near Big Lagoon in Humboldt County (HUM-101-PM 110±) and the Last Chance Grade in Del Norte County (DN-101-PM 14.5 ±).

SAFETY AND OPERATIONAL IMPROVEMENT STRATEGY

Several segments of Route 101 have collision rates greater than 1.5 times (150%) of the statewide average, based on similar facilities: ³

- **MEN-101-KP 131.0/T146.8 (PM 81.2/T91.2)** [Bell Springs Rd. to Jct. Rte. 1 at Leggett]
- **HUM-101-KP T0.0/R9.0 (PM T0.0/R5.6)** [MEN/HUM Co. line to No. of Richardson Grove]
- **HUM-101-KP R9.0/120.4 (PM R5.6/74.8)** [North of Richardson Grove to So. of Eureka]
- **DN-101-KP M0.0/R5.8 (PM M0.0/R3.6)** [HUM/DN Co. line to Kamp Klamath]
- **DN-101-KP 20.1/41.5 (PM 12.5/25.8)** [Wilson Creek/Last Chance Grade to South of Crescent City]
- **DN-101-KP 41.5/43.8 (PM 25.8/27.2)** [South of Crescent City to North of Crescent City]

The District has an established collision surveillance and monitoring program, which identifies locations with collision concerns and recommends safety improvements when warranted. **Safety improvements at spot locations will be considered as necessary.**

Bridge replacement, storm damage and operational improvement projects will also be considered when necessary. These projects, in addition to safety projects, should be constructed to established State and Federal standards.

In the late 1980s, Caltrans barrier striped two-lane highways to comply with Federally mandated standards. This reduced the number of passing opportunities (and the level of service) on most two-lane State highways, including portions of Route 101. Therefore the District has constructed some passing lane projects to mitigate the impact of barrier striping, and is considering others.

³ Data from TASAS Table B District 1 Selective Collision Rate Calculation, March 2000.

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COMMUNITY ENHANCEMENT STRATEGY

Community Enhancements, which include the development of traffic calming improvements to reduce traffic speed and noise, development of context-sensitive improvement alternatives, and development of bicycle/pedestrian facilities to increase the opportunities for non-motorized trips, can improve the quality of life in our communities. Caltrans supports community enhancement opportunities and is interested in partnering with Regional Transportation Planning Agencies, counties, cities, and communities where Route 101 is the Main Street through a city or community (examples include Orick and Crescent City), to achieve livable community goals.

In addition, interim concepts for community enhancements may be considered in areas like Hopland, Laytonville, Willits, and the City of Eureka. Route 101 would ultimately bypass these communities based on the facility concept in this document.

Safety will continue to be the primary concern in the consideration of the entire transportation network of which community streets are a part.

GOODS MOVEMENT STRATEGY

Route 101 is a major goods movement route serving the California North Coast. It is used to transport food and other essential supplies to communities along this corridor, and to transport goods to market. The Route also provides important east-west connections to Interstate 5 via Highways 20, 36, 197, 199, and 299 in District 1. Consistent with the relatively high truck traffic volumes on this Route, goods movement improvement emphasis is on Route safety and reliability.

Concerns have been expressed that long Interstate trucks (STAA) are becoming the standard and if our principal arterial routes will not accommodate these trucks it will impact the area's economic potential. In the Route 101 corridor, the Department's strategy is to provide a safe and reliable alignment to accommodate STAA trucks where feasible and environmentally appropriate. Where environmental or cost concerns exist in the design of facility improvements to achieve this strategy, the Department will seek other strategies to accommodate goods movement to support economic opportunities through the corridor.

STAA trucks are restricted at four locations on Route 101, three in Humboldt County and one in Mendocino County. Detailed information regarding STAA trucks and the location of each of these restrictions, including photos and a livestock carrier exception to the STAA truck regulation, may be found in Appendix "B" of this report.

CORRIDOR PRESERVATION STRATEGY

Virtually all of the right of way on Route 101 is either owned by the State or the State has acquired easements for the construction and maintenance of the roadway. Right of way width is generally a minimum of 60 feet for two-lane sections, and approximately 120 feet for four-lane conventional and expressway sections. Most recently constructed freeway sections have minimum right of way widths of approximately 140 feet. In mountainous

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terrain, right of way widths of over 500 feet are not uncommon, particularly for freeway sections.

Based on projections of development currently envisioned for the Route 101 corridor, it is anticipated that the long-term right of way needs will include the right of way required to convert two-lane conventional highway and multi-lane conventional highway to four-lane freeway/expressway or the bypass of areas, consistent with the Facility Concept detailed in Section I of this RCR. In the segment of Route 101 containing Last Chance Grade in Del Norte County (KP 20.1/41.4 (PM 12.5/25.7)), as part of the recent sale of the Mill Creek watershed area, an agreement was negotiated among the County of Del Norte, Stimpson Timber, and Save-the-Redwoods League identifying a concept level alternate route for Route 101 with the parties agreeing to discuss a final alignment if maintenance of the Last Chance Grade on the existing alignment proves infeasible.

NON-MOTORIZED FACILITIES STRATEGY

Most of Route 101 through the District (from Route 1 at Leggett to the California/Oregon State Line) is legislatively designated as the "Pacific Coast Bike Route". Shoulders on Route 101 are relatively narrow in some locations, and not well suited to non-motorized traffic. Caltrans is interested in upgrading shoulders to better accommodate bicycle traffic, particularly between the community of Leggett and the California/Oregon State line where Route 101 serves as the "Pacific Coast Bike Route". Discussion has been ongoing in many communities regarding the development of alternate parallel routes that would be safer and more attractive to both cyclists and pedestrians.

Caltrans is developing a strategy to inventory gaps in shoulder facilities for bicyclists, and a methodology to help determine the focus of priorities. Caltrans has evaluated the segments of Route 101 which comprise the "Pacific Coast Bike Route" using the Bike Compatibility Index (BCI) methodology⁴ in an effort to determine the "bicycle friendliness" of the roadway segments. Production testing of the BCI methodology on Route 101 segments has revealed flaws in the methodology limiting its applicability in this corridor. Caltrans will continue to evaluate other tools to assist in identification of gaps in acceptable service for bicyclists along the Pacific Coast Bike Route sections of Route 101.

Caltrans is additionally conducting a study to determine the highest priority areas within identified segments of Route 101 for non-motorized projects where existing shoulder widths are less than 1.2 meters (4 feet), and will evaluate further tools to assist in this prioritization.

The draft Mendocino County Regional Transportation Plan contains a summary of constraints and opportunities for non-motorized travel expressed by community groups and City/County staff. While generated for Mendocino County, most comments have relevance to other communities in the District, and can be used as a basis for discussion of community needs and desires.⁵

⁴ The Bicycle Compatibility Index, A Level of Service Concept, Implementation Manual, FHWA December 1998

⁵ Draft Mendocino County Regional Transportation Plan, February 2002, page 100

III. ALTERNATIVE CONCEPTS CONSIDERED

Three other route concepts that were considered for Route 101 in District 1 are as follows:

1. **FOUR-LANE FREEWAY/EXPRESSWAY FROM SONOMA/MENDOCINO COUNTY LINE TO SOUTH WILLITS (MEN-101-±KP 72.4 (PM 45)), THEN EXISTING FACILITY NORTH TO THE CALIFORNIA/OREGON STATE LINE:** This concept was rejected due to the following concerns:
 - Peak hour Level of Service: Most of the two-lane portions of Route 101 between South Willits and Eureka are at LOS D or E.
 - Reliability: four-lane segments generally have fewer road closures.
 - Safety: four-lane divided facilities have lower collision rates than two-lane facilities.
 - Travel time: A two-lane facility would result in longer travel times than a four-lane facility, due to a lower speed limit and lack of passing opportunities.Regional support: RTPA's historic support of a four-lane concept for Route 101.
2. **FOUR-LANE FREEWAY/EXPRESSWAY FROM THE SONOMA/MENDOCINO COUNTY LINE TO SOUTH OF BIG LAGOON IN HUMBOLDT COUNTY (HUM-101 KP 176.0 (PM 109.4)), THEN EXISTING FACILITY NORTH TO THE CALIFORNIA/OREGON STATE LINE:** Based on higher traffic volumes and greater growth potential, Caltrans felt a four-lane freeway/expressway facility may be needed between the U.S. 199/U.S. 101 junction and the California/Oregon border (DN 43.8/50.4 (PM 27.2/31.3)), within the 20-year period.
3. **FOUR-LANE FREEWAY/EXPRESSWAY FOR ALL BUT TWO SEGMENTS OF ROUTE 101 IN DISTRICT 1:** This is the concept approved in the 1994 Route Concept Report. This concept was reevaluated in the 2001 RCR update and was rejected due to cost and environmental concerns, including old-growth redwoods and State Parks lands. Two segments were reduced in concept from four-lane freeway/expressway to two-lane in our 1994 RCR: the Harry A. Merlo State Recreation Area (HUM-101-KP 176.1/181.9 (PM 109.4/113.0)) and Del Norte Redwoods State Park (DN-101-KP 20.1/35.9 (PM 12.5/22.3)). The preferred concept for two additional segments in this RCR is a reduction from four-lane freeway/expressway to existing two-lane facility: Leggett to Red Mountain Creek (MEN-101-KP R145.5/R162.7 (PM R90.4/R101.1)) and Richardson Grove (HUM-101-KP T0.0/R9.0 (PM T0.0/R5.6)). In the development of the Route 101 RCR, Caltrans District 1 Staff identified these two segments as "Long-Standing Projects" which have been under consideration for decades. Feasibility studies were prepared for these long-standing projects, and community meetings were held to receive input. Based on the findings contained in the Feasibility Study prepared for each of these projects, and consistent with the community input received relating to environmental impact and cost, four-lane freeway/expressway bypasses of these two areas are not included in the current Route Concept.

In addition to the four segments with reduced concepts noted above, neither Regional Transportation Planning Agencies nor the public supported development of Route 101 in Northern Humboldt or Southern Del Norte Counties to four-lane freeway/expressway within the 20-year planning period. It is anticipated that support for development of

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segments in this area currently in Regional Transportation Plans will not be included in subsequent updates of these plans.

IV. ROUTE ANALYSIS

DESCRIPTION

In District 1, Route 101 begins at the Sonoma/Mendocino County line just north of Cloverdale, and traverses Mendocino, Humboldt and Del Norte Counties before entering the State of Oregon. The route, known as the Redwood Highway, is approximately 285 miles (459 kilometers) in length within District 1. It has a post mile description of MEN-101-KP R0.2/T171.9 (PM R0.1/T106.8), HUM-101-KP T0.0/220.7 (PM T0.0/R137.1) and DN-101-KP M0.0/74.8 (PM M0.0/46.5).

ROUTE PURPOSE

Route 101 traverses the entire length of District 1 from the Mendocino/Sonoma County line to the Oregon border. Route 101 is the primary north-south transportation corridor, and by far the most important route in District 1. It provides access to three of the four county seats, five of the six urban areas, and eight of the fourteen incorporated cities, including the three largest cities in the District (Eureka – population 27,550; Arcata – population 16,400; and Ukiah – population 14,950).⁶ Route 101 connects with three other principal arterials within District 1 (Route 20 near Ukiah, Route 299 north of Arcata, and Route 199 north of Crescent City).

Route 101 is of interregional and interstate significance, and is designated as a High Emphasis Focus Route in the State Interregional Transportation Strategic Plan (ITSP). The route is used for the transportation of intercity/interstate commerce to Gateways, and is the lifeline of the north coast connecting rural areas to and through urban centers. Goods needed by residents in the area are shipped to merchants along the route, and lumber, cattle, agricultural, and dairy products are transported from local harvest areas to Gateways, destined for national and international markets.

The route also serves other modes of transportation, including port access at Humboldt Bay and Crescent City Harbor, and commercial airport access at the regional Eureka/Arcata airport, and six local airports.

Route 101 is the principal route to many north coast recreational areas including twelve State Parks, the Redwood National Park, several National Forest areas, river and ocean fishing, bicycling, surfing, and beach areas, thereby contributing to the economic well-being of state and regional economies by facilitating recreational travel and tourism.

⁶ Department of Finance, California County and City Population estimates, January 2000

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ROUTE SEGMENTATION

Route 101 is segmented for System Planning purposes in Table I below:

**TABLE I
ROUTE 101 SEGMENTATION**

| SEG # | ROUTE 101 in DISTRICT 1 | | DESCRIPTION |
|-------|-------------------------|---------------|--|
| | KP | PM | |
| 1 | MEN R0.2/9.3 | R0.1/5.8 | SON/MEN Co. line to Pieta Creek |
| 2 | MEN 9.3/28.3 | 5.8/17.6 | Pieta Creek to South of Ukiah |
| 3 | MEN 28.3/T70.0 | 17.6/T43.5 | So. of Ukiah to South of Willits |
| 4 | MEN T70.0/89.2 | T43.5/55.2 | So. of Willits to So. of Arnold |
| 5 | MEN 89.2/104.1 | 55.2/64.7 | So. of Arnold to South of Laytonville |
| 6 | MEN 104.1/131.0 | 64.7/81.4 | So. of Laytonville to Bell Springs Rd. |
| 7 | MEN 131.0/T146.8 | 81.4/T91.2 | Bell Springs Rd. to Jct. Rte. 1 at Leggett |
| 8 | MEN T146.8/161.4 | T91.2/100.3 | Jct. Rte. 1 at Leggett to Red Mountain Creek |
| 9 | MEN 161.4/T171.9 | 100.3/T106.8 | Red Mountain Creek to MEN/HUM County line |
| 10 | HUM T0.0/R9.0 | T0.0/R5.6 | MEN/HUM County line to North of Richardson Grove |
| 11 | HUM R9.0/120.4 | R5.6/74.8 | No. of Richardson Grove to South Eureka Urban bndry. |
| 12 | HUM 120.4/128.4 | 74.8/79.8 | So. Eureka Urban bndry. to near No. Eureka city limits |
| 13 | HUM 128.4/130.1 | 79.8/85.8 | Near North Eureka city limits to Jct. Rte 255 |
| 14 | HUM 130.1/176.1 | 85.8/109.4 | Jct. Rte 255 to Big Lagoon |
| 15 | HUM 176.1/R202.4 | 109.4/R125.8 | Big Lagoon to Redwood National Park Bypass |
| 16 | HUM R202.4/R220.6 | R125.8/R137.1 | Redwood National Park Bypass |
| 17 | DN M0.0/R5.8 | M0.0/R3.6 | HUM/DN Co. line to Kamp Klamath |
| 18 | DN R5.8/20.1 | R3.6/12.5 | Kamp Klamath to Wilson Creek |
| 19 | DN 20.1/41.4 | 12.5/25.7 | Wilson Creek to South of Crescent City |
| 20 | DN 41.4/43.8 | 25.7/27.2 | So. of Crescent City to North of Crescent City |
| 21 | DN 43.8/50.4 | 27.2/31.3 | No. of Crescent City to Jct. Rte. 199 |
| 22 | DN 50.4/74.8 | 31.3/46.5 | Jct. Rte. 199 to Oregon border |

LAND USE

Land adjacent to Route 101 in District 1 varies considerably. Agriculture, parkland, timber production and grazing accounts for much of the land use, however more intensive land use is prevalent in communities and urban areas. Further development is anticipated, primarily in and near existing urban areas and also in southern Mendocino County in the Hopland area.

Route 101 is heavily used by recreational traffic, and this traffic is expected to continue to increase in the future.

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EXISTING FACILITIES

Approximately 73% of Route 101 from the Sonoma/Mendocino County line to Big Lagoon (about 30 miles north of Eureka) in Humboldt County is developed to four-lane freeway/expressway standards. Only about 24% of Route 101 from Big Lagoon to the California/Oregon border is developed to four-lane freeway/expressway standards. The majority of four-lane freeway/expressway is developed to a 60-foot, all-paved roadway section. More recently, improved four-lane segments are divided with 22- to 36-foot medians and 8- to 10-foot shoulders.

In addition, there are four-lane conventional highway segments in Willits and one-way couplets in Eureka and Crescent City. The remaining areas are generally two-lane conventional or expressway, some of which contain intermittent passing lanes.

Table II below and the information on the following page summarize existing facility characteristics for the Route 101 corridor in District 1.

TABLE II
ROUTE 101 EXISTING FACILITY CHARACTERISTICS

| SEG # | ROUTE 101 in DISTRICT 1 | | DESCRIPTION | EXISTING FACILITIES |
|-------|-------------------------|---------------|--|------------------------|
| | KP | PM | | |
| 1 | MEN R0.2/9.3 | R0.1/5.8 | SON/MEN Co. line to Pieta Creek | 4-E |
| 2 | MEN 9.3/28.3 | 5.8/17.6 | Pieta Creek to South of Ukiah | 2-C w/TPL |
| 3 | MEN 28.3/T70.0 | 17.6/T43.5 | South of Ukiah to South of Willits | 4-F/E |
| 4 | MEN T70.0/89.2 | T43.5/55.4 | South of Willits to Arnold | 2 & 4-C |
| 5 | MEN 89.2/104.1 | 55.4/64.7 | Arnold to South of Laytonville | 4-C/E |
| 6 | MEN 104.1/131.0 | 64.7/81.4 | South of Laytonville to Bell Springs Rd. | 2-C |
| 7 | MEN 131.0/T146.8 | 81.4/T91.2 | Bell Springs Rd. to Jct. Rte. 1 at Leggett | 4-F/E |
| 8 | MEN T146.8/161.4 | T91.2/100.3 | Jct. Rte. 1 at Leggett to Red Mountain Creek | 2-C |
| 9 | MEN 161.4/T171.9 | 100.3/T106.8 | Red Mountain Creek to MEN/HUM County line | 4-F/E |
| 10 | HUM T0.0/R9.0 | T0.0/R5.6 | MEN/HUM County line to North of Richardson Grove | 2-C |
| 11 | HUM R9.0/120.4 | R5.6/74.8 | North of Richardson Grove to South Eureka Urban boundary. | 4-F/E |
| 12 | HUM 120.4/128.4 | 74.8/79.8 | South Eureka Urban boundary to near North Eureka city limits | 4-F/E 5 & 6 Couplet |
| 13 | HUM 128.4/130.1 | 79.8/85.8 | Near North Eureka city limits to Jct. Rte 255 | 4-F/E |
| 14 | HUM 130.1/176.1 | 85.8/109.4 | Jct. Rte 255 to Big Lagoon | 4-F/E |
| 15 | HUM 176.1/R202.4 | 109.4/R125.8 | Big Lagoon to Redwood National Park Bypass | 2-C |
| 16 | HUM R202.4/R220.6 | R125.8/R137.1 | Redwood National Park Bypass | 4-E |
| 17 | DN M0.0/R5.8 | M0.0/R3.6 | HUM/DN Co. line to Kamp Klamath | 4-E |
| 18 | DN R5.8/20.1 | R3.6/12.5 | Del Norte Redwoods State Park Area | 2-C/E |
| 19 | DN 20.1/41.4 | 12.5/25.7 | Wilson Creek to South of Crescent City. | 2-C w/TPL |
| 20 | DN 41.4/43.8 | 25.7/27.2 | South of Crescent City to North of Crescent City | 4-C & 4 Couplet |
| 21 | DN 43.8/50.4 | 27.2/31.3 | North of Crescent City to Jct. Rte. 199 | 4-C/F |
| 22 | DN 50.4/74.8 | 31.3/46.5 | Jct. Rte. 199 to Oregon border | 2-C/E |

F = Freeway E = Expressway C = Conventional TPL = Truck Passing Lanes

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ROUTE 101 EXISTING FACILITY CHARACTERISTICS (continued)

| | |
|---|-----------------------|
| Functional Classification: | Principal Arterial |
| Eligible for Federal Funding: | Yes |
| Freeway and Expressway System: | Yes |
| Eligible for Scenic Highway Designation: | Portions ⁷ |
| Subsystem of Highways for Extra Legal Loads (SHELL): | Yes |
| Surface Transportation Assistance Act (STAA) Trucks Allowed: | Portion ⁸ |
| Strategic Highway Network: | Yes |
| National Highway System: | Yes |
| Interregional Road System: | Yes |
| Interregional Transportation Strategic Plan | High Emphasis Route |

Public Airports:

The North Coast Region has 454,000 annual aircraft operations. The number of aircraft and the annual operations for the highest volume regional airports are listed below.⁹

| <u>AIRPORTS</u> | <u>BASED AIRCRAFT</u> | <u>ANNUAL OPERATIONS (1999)</u> |
|-------------------------------|-----------------------|---------------------------------|
| Ukiah Municipal | 95 | 43,300 |
| Willits Municipal | 21 | 5,500 |
| Garberville Airport | 20 | 15,000 |
| Rohnerville Airport, Fortuna | 36 | 27,500 |
| Murray Field, Eureka | 101 | 65,450 |
| Arcata/Eureka, McKinleyville | 15 | 87,500 |
| McNamara Field, Crescent City | 35 | 18,245 |

Rail Service:

North Coast Railroad Authority (Arcata-Healdsburg); California Western Railroad (Fort Bragg to Willits); North Western Railroad Authority (Healdsburg-Lombard)
Amtrak Feeder Buses (Crescent City to Martinez)

Intercity Bus Service:

Greyhound, Amtrak, Humboldt Transit Authority, Mendocino Transit Authority, Redwood Coast Transit

Marine Transportation:

Humboldt Bay (38' to 48' channel depth) & Crescent City Harbor

Intersecting State Highway Routes:

175, 253, 222, 20,162, 271, 1, 254, 283, 36, 211, 255, 299, 200, 169, 199, 197

Park and Ride Lots:

Eureka: Elk River Road Interchange; Fortuna: Kenmar Road and Rohnerville Road Interchange and in the City of Trinidad

⁷ Two portions of Route 101 within District 1 are legislatively designated as eligible for scenic highway status: From Leggett in Mendocino County to Route 199 north of Crescent City in Del Norte County, and from Route 197 to the Oregon border in Del Norte County. One small segment in Redwood National Park has been officially designated (DN-101-PM 11.0/23.1)

⁸ STAA trucks are allowed on Route 101 from the MEN/SON County line to the Leggett area in MEN County, and from Anchor Way in Crescent City to the California/Oregon State line.

⁹ California Aviation System Plan, Caltrans Aeronautics Program, September 1998, pages 13-37

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OPERATING CONDITIONS

General operating conditions, including traffic volume ranges and levels of service for both existing and anticipated future conditions for Route 101 are shown in Maps 1, 2, and 3 on the following pages. This information is based on the 2000 Highway Capacity Manual for two-lane and four-lane segments. Further information regarding specific operating and geometric conditions may be found in Caltrans source documents (e.g., the State Highway Inventory, the State Highway Log, and Traffic Volumes on California State Highways, etc.)

THE ROUTE 101 RAIL CORRIDOR

In District 1, rail operations in the corridor are currently under the direction of the North Coast Railroad Authority (NCRA). The rail corridor generally parallels Route 101 from the City of Arcata to Lombard near Napa. The Northwestern Pacific Railroad Authority (NWPRA) owns the rail line from Healdsburg south to Napa. Regularly scheduled freight service was provided along this route until major storm damage closed the line February 3, 1998. Regularly scheduled passenger service two days per week was provided in this corridor by Southern Pacific in 1970 lasting one year, excursion service from Healdsburg to Willits was initiated in October 1996 lasting 10 months, and excursion passenger service from Willits to Eureka was introduced in 1985. When operating, it is anticipated the NCRA will continue to provide freight service as the Northwestern Pacific Railroad to Humboldt, Mendocino, Napa, and Sonoma Counties and some excursion service to Mendocino and Humboldt Counties. Commuter rail service in the corridor is currently being studied by the Sonoma Marin Area Rail Transit for feasibility on the southern portion of the line from San Rafael to Cloverdale.

Freight carried by rail includes natural resource products, such as lumber, fish, and raw aggregate. Since the closure of the line, commercial trucks for various commercial shipping companies along Route 101 transport materials previously shipped via the railroad.

MARINE TRANSPORTATION IN THE ROUTE 101 CORRIDOR

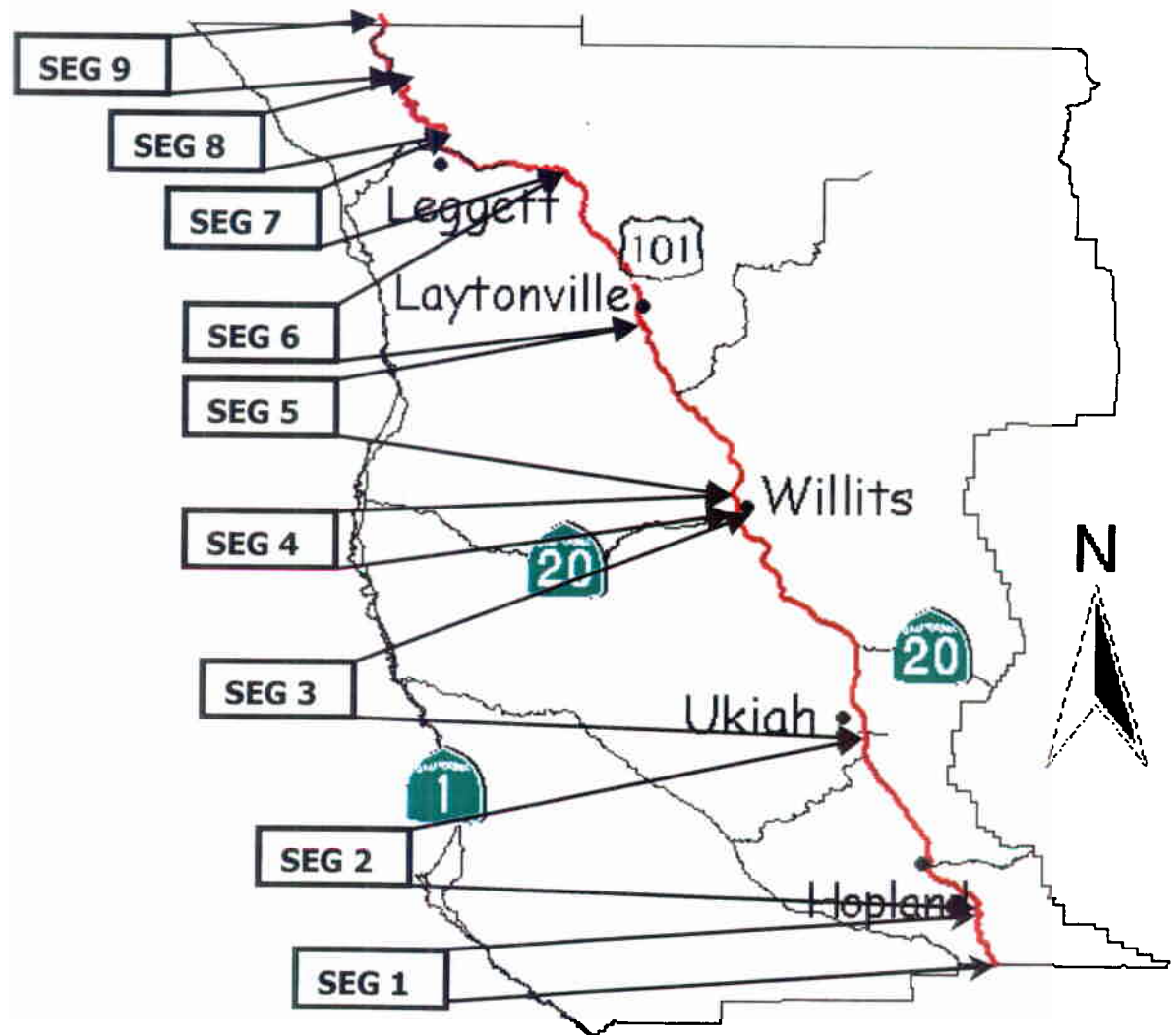
Humboldt Bay is a deep-water port, which supports the shipping and barging of goods and most recently plays host to cruise ship travel. Forest products are the primary export and petroleum products are imported for local distribution. Approximately 1,220,000 tons were shipped in fiscal year 1999/2000. Most shipping is to and from Pacific Rim ports, following routes that do not parallel Route 101. The Humboldt Bay Harbor and Recreation District and the U.S. Army Corps of Engineers recently completed a port "deepening" project that made the port capable of handling 85% of the Pacific Rim shipping traffic. In previous years, only 40% of Pacific Rim ships had a low enough draft to enter the port and deliver products. The Crescent City Harbor is primarily a commercial and sport fishing facility, at one time accommodating fuel shipments.

INFORMATION TECHNOLOGY TRANSPORTATION CORRIDOR

Utilization of the Route 101 corridor to facilitate innovations in the information technology area is encouraged with the near-term goal of providing fiber optic technology to north coast communities using segments of the Route 101 corridor.

ROUTE 101 RCR
MAP 1
PRESENT AND FUTURE OPERATING CONDITIONS
ROUTE 101 IN MENDOCINO COUNTY

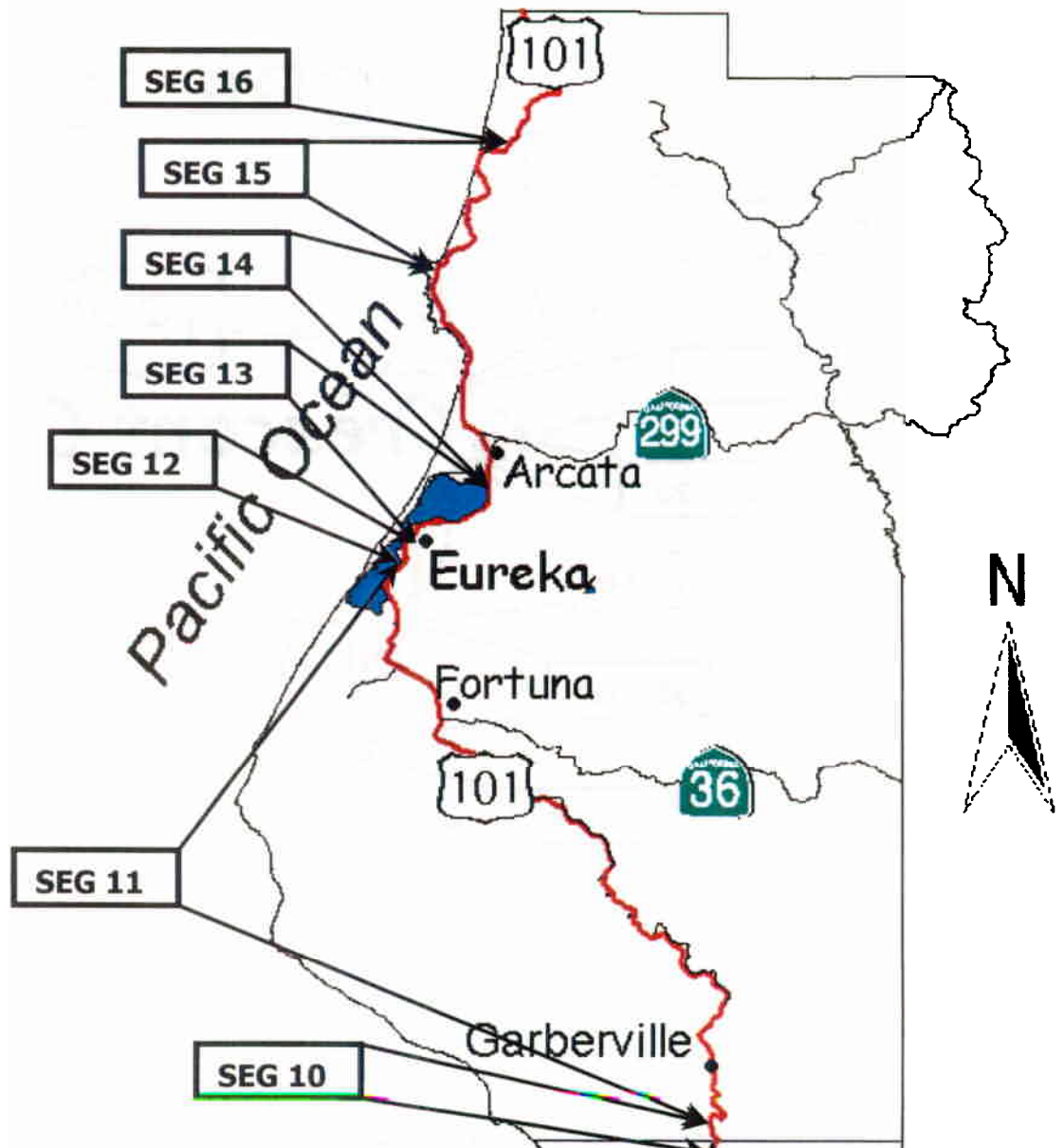
| SEG NO. | KM POST | POST MILE | PRESENT (2000) TRAF. VOL. (LOS) | FUTURE (2020) TRAF. VOL.(LOS) | EXISTING FACILITY |
|--------------------|--------------------|----------------------|--|--|------------------------------|
| 9 | 161.4/T171.9 | 100.3/T106.8 | 5,800 (A) | 8,700 (A) | 4-F/E |
| 8 | T146.8/161.4 | T91.2/100.3 | 5,800 (D) | 8,700 (E) | 2-C |
| 7 | 131.0/T146.8 | 81.4/T91.2 | 5,800 (A) | 8,700 (A) | 4-F/E |
| 6 | 104.1/131.0 | 64.7/81.4 | 5,900 (E) | 8,800 (E) | 2-C |
| 5 | 88.8/104.1 | 55.2/64.7 | 6,400 (A) | 9,550 (B) | 4-C/E |
| 4 | T70.0/88.8 | T43.5/55.2 | 15,000 SUF* | 25,500 SUF* | 2 & 4-C |
| 3 | 28.3/T70.0 | 17.6/T43.5 | 19,700 (B) | 27,600 (C) | 4-F/E |
| 2 | 9.3/28.3 | 5.8/17.6 | 12,600 (D) | 21,300 (E) | 2-C with TPL |
| 1 | R0.2/9.3 | R0.1/5.8 | 12,600 (A) | 17,640 (B) | 4-E |



* SUF (signalized unstable flow): signalized intersections control level-of-service, and the segment experiences unstable flow at peak hour.

ROUTE 101 RCR
MAP 2
PRESENT AND FUTURE OPERATING CONDITIONS
ROUTE 101 IN HUMBOLDT COUNTY

| SEG NO. | KM POST | POST MILE | PRESENT (2000) TRAF. VOL. (LOS) | FUTURE (2020) TRAF. VOL.(LOS) | EXISTING FACILITY |
|--------------------|--------------------|----------------------|--|--|------------------------------|
| 16 | R202.4/R220.6 | R125.8/R137.1 | 3,600 (A) | 5,000 (A) | 4-E |
| 15 | 176.1/R202.4 | 109.4/R125.8 | 4,600 (C) | 6,000 (D) | 2-C |
| 14 | 130.1/176.1 | 85.8/109.4 | 18,600 (B) | 26,000 (C) | 4-F/E |
| 13 | 128.4/130.1 | 79.8/85.8 | 34,800 (C) | 48,700 (E) | 4-F/E |
| 12 | 120.4/128.4 | 74.8/79.8 | 34,600 SUF* | 48,400 SUF* | 4F/E-5&6Couplet |
| 11 | R9.0/120.4 | R5.6/74.8 | 11,600 (B) | 15,000 (B) | 4-F/E |
| 10 | T0.0/R9.0 | T0.0/R5.6 | 5,000 (C) | 6,400 (D) | 2-C |

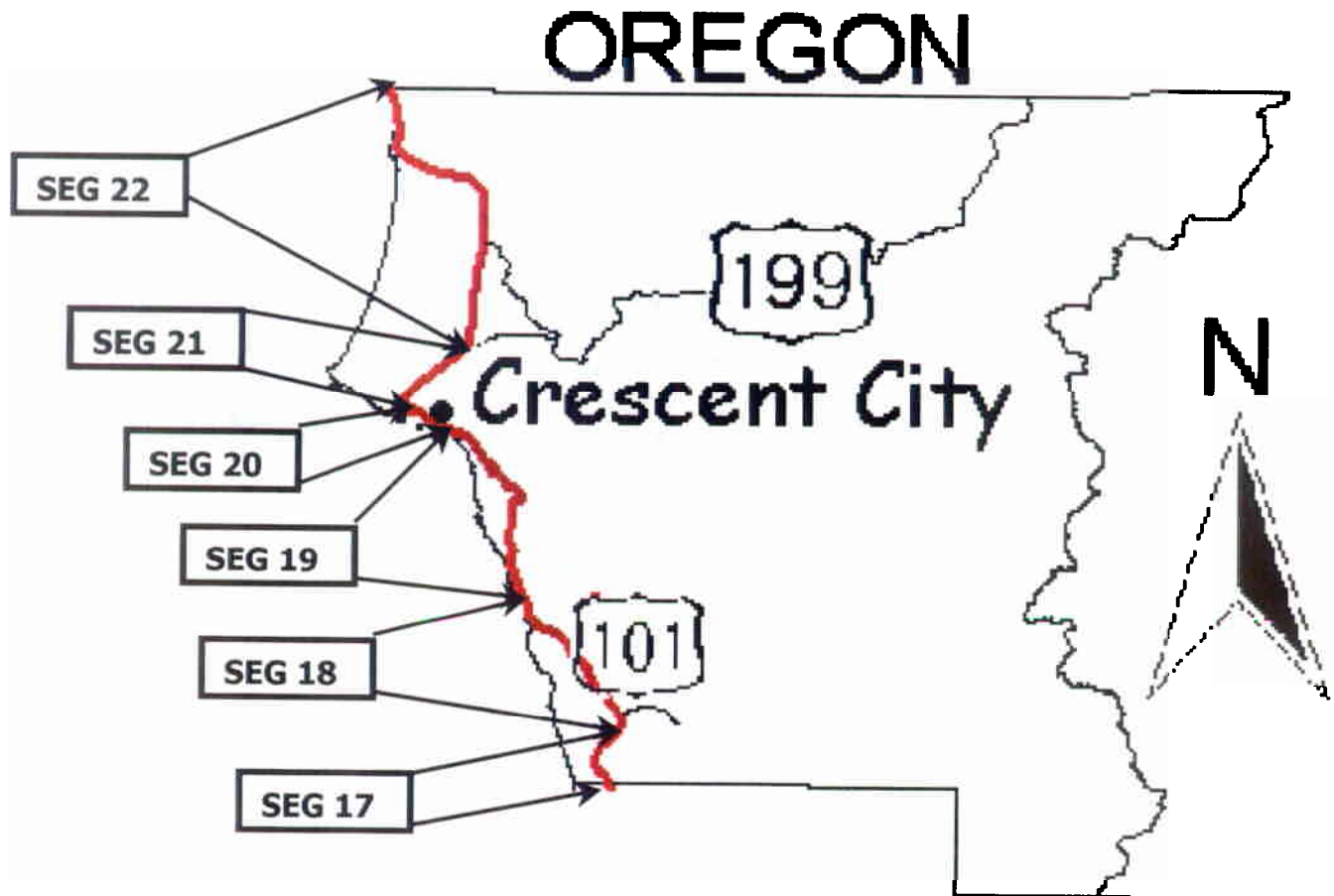


- **SUF (signalized unstable flow):** signalized intersections control level of service, and some intersections within the segment experience unstable flow at peak hour.

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MAP 3 PRESENT AND FUTURE OPERATING CONDITIONS ROUTE 101 IN DEL NORTE COUNTY

| SEG NO. | KM POST | POST MILE | PRESENT (2000) TRAF. VOL. (LOS) | FUTURE (2020) TRAF. VOL.(LOS) | EXISTING FACILITY |
|------------|------------|--------------|------------------------------------|----------------------------------|----------------------|
| 22 | 50.4/74.8 | 31.3/46.5 | 7,200 (C) | 12,300 (D) | 2-C/E |
| 21 | 43.8/50.4 | 27.2/31.3 | 8,600 (A) | 14,600 (B) | 4-C/F |
| 20 | 41.4/43.8 | 25.7/27.2 | 23,000 SSF* | 39,100 SSF* | 4-C & 4Couplet |
| 19 | 20.1/41.5 | 12.5/25.7 | 6,200 (C) | 8,700 (D) | 2-c w/PL |
| 18 | R5.8/20.1 | R3.6/12.5 | 5,100 (C) | 7,200 (D) | 2-C/E |
| 17 | M0.0/R5.8 | M0.0/R3.6 | 3,400 (A) | 4,800 (A) | 4-E |



* SSF (signalized stable flow): signalized intersections control level-of-service and the segment experiences stable flow at peak hour.

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PROGRAMMED IMPROVEMENTS

Table III below is a listing of programmed improvements on Route 101 in the 2000 State Transportation Improvement Program (STIP).

TABLE III
2000 STIP PROGRAMMED CAPACITY INCREASING IMPROVEMENTS

| POST MILE | IMPROVEMENT | Construction Schedule To Begin | Programmed Cost in 2000 Dollars ¹⁰ |
|---|---|--------------------------------|---|
| MEN-101-PM 5.7/9.2 | South Hopland Unit III, four-lane Expressway - 3.4 mi. | Under construction | \$ 16,668,000 |
| MEN-101-PM 8.8/13.0 & MEN-101-PM 13.6/17.6 | Hopland Bypass and North Hopland, four-lane Freeway/Expressway (PDS only) 8.8 mi. | PDS only* | \$ 7,200,000 |
| MEN-101-PM T43./52.3 | Willits Bypass, four-lane Freeway - 7.8 mi. | 2004/05** | \$ 130,000,000 |
| HUM-101-PM 57.0/58.8 | Rtes 101/ 36 Interchange and Frontage Roads 1.8 mi. | 2005/06 ^x | \$ 4,795,000 |
| HUM-101-PM 79.8/85.8 | Eureka/Arcata Corridor Improvements | 2008/09 | \$ 2,613,000 |
| DN-101-PM R27.5/27.9 | Washington Blvd., Freeway Ramp - 0.4 mi. | 2001/02 | \$ 3,374,000 |
| Programmed cost includes Right of Way, except for PDS only projects. | | | |
| * PDS = project development support, the project is funded through Project Approval and Environmental Document. | | | |
| ** includes funds for construction and R/W only | | | |
| ^x does not include construction dollars | | | |

In addition to projects programmed in the STIP, nearly 17 projects on Route 101 are programmed in the State Highway Operation and Protection Program (SHOPP) at a cost of approximately \$80 million. These projects generally address safety, rehabilitation, bridge replacement and operational concerns.

V. ENVIRONMENTAL CONSIDERATIONS

Principal environmental concerns along Route 101 in District 1 include:

- Wild and Scenic Rivers: Route 101 follows the Eel River in Mendocino and Humboldt Counties, and crosses the Van Duzen River in Humboldt County and the Klamath and Smith Rivers in Del Norte County. These wild and scenic rivers have critical salmon and steelhead spawning and nursery habitats, and are unique visual resources.
- Salmon and steelhead: The Route 101 Corridor crosses many large and small river systems that support critical habitat and populations of sensitive species, and water quality is of significant concern on these watercourses.
- The impact of gravel extraction on highway structures.
- Soil stability is a factor for concern along many areas of Route 101.
- Route 101 has archaeological and culturally significant sites where the local Native American tribes gather food and materials necessary for everyday life, sites where their ancestors lived and are buried, and sacred sites associated with religious activity.

¹⁰ CTIPS, Current Official STIP Document, September 2000

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- Important wetland habitat for waterfowl and water associated wildlife:
 - Little Lake at Willits (MEN-101-KP 75.6/82.1 (PM 47.0/51.0))
 - Humboldt Bay and vicinity (HUM-101-KP 109.4/140.0 (PM 68.0/87.0))
 - Near the mouth of Mad River (HUM-101-KP 140.0/146.5 (PM 87.0/91.0))
 - Sanel Valley south of Hopland (HUM-101-KP 70/80 (PM 43.5/50))
- Naturally Occurring Asbestos (NOA): NOA is known to occur in the vicinity of the rock outcropping south of Hopland (MEN-101-KP 6.4/16.1 (PM 4.0/10.0)) and near Cummings (MEN-101-KP R136.8 (PM R85.0)) on Route 101. Site specific testing to determine asbestos content to comply with Cal/OSHA and AQMD rules will likely be required as part of a project development process in these areas.
- Rare and sensitive plant and animal species are located adjacent to Route 101 at numerous locations.
- State and National Parks, with old-growth redwood groves which Route 101 passes through or is adjacent to including:
 - Standish Hickey (MEN-101-KP 151.3 (PM 94.0))
 - Smithe Redwoods (MEN-101-KP 154.5) (PM 96.0))
 - Richardson Grove (HUM-101-KP 3.2) (PM 2.0))
 - Humboldt Redwoods State Park (HUM-101-KP 41.7/64.4) (PM25.9/40))
 - Humboldt Lagoons (HUM-101-KP 177.0/189.9) (PM 110.0/118.0))
 - Prairie Creek Redwoods (HUM-101-KP 202.8/215.7) (PM 126.0/134.0))
 - Del Norte Coast Redwoods (DN-101-KP 16.1/32.2) (PM 10.0/20.0))
 - Redwood National Park (HUM-101-KP 177.0/DN-101-KP 49.9) (PM 110.0/PM 31.0))
- Coastal Zone Areas: Beginning at approximately kilometer post 92 (post mile 57) in Humboldt County north to the Oregon border, about 70% (approximately 142 kilometers or 88 miles) of Route 101 is either within the Coastal Zone boundary, or the Coastal Zone boundary coincides with the highway right-of-way.

VI. REGIONAL TRANSPORTATION PLANNING

NORTH COASTAL COUNTIES SUPERVISORS ASSOCIATION (NCCSA)

For the past several years, the Regional Transportation Planning Agencies in District 1, and the North Coast Counties Supervisors Association (NCCSA) have recognized Route 101 as the highest priority for improvement, and identified some specific undeveloped sections as critical level of service gaps. The NCCSA priorities on Route 101 in District 1 are:

1. Wilson Creek Bluffs, reconstruct 2-lane highway (DN-101-KP 24.1/25.1 (PM 15.0/15.6))
2. Hopland Bypass, 4-lane freeway/expressway (MEN-101-KP 14.8/22.5 (PM 9.2/14.0))
3. North Willits to Arnold, 2-lane freeway/expressway (MEN-101-KP 82.5/88.8 (PM 51.3/55.2))
4. North Hopland to Ukiah, 4-lane freeway/expressway (MEN-101-KP 22.5/28.3 (PM 14.0/17.6))
5. Eureka/Arcata Corridor Improvements, (formerly expressway conversion to freeway) improve safety and operations (HUM-101-KP 128.4/138.1(PM 79.8/85.8))

The NCCSA emphasized that the above priorities are for projects not included (or not fully funded) in the STIP, and are not intended to replace projects in the approved STIP (e.g.

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Willits Bypass). Further, it is intended that full funding of partially funded projects have priority over the projects prioritized above.

The Regional Transportation Plans (RTP) for the counties along Route 101 in District 1 are updated biannually and the most recent editions are presented in the following:

MENDOCINO COUNCIL OF GOVERNMENTS (MCOG)

The 1996 re-approval of the 1994 MCOG Mendocino County Regional Transportation Plan includes the following objective regarding new facility improvements on Route 101:

1. Development of U.S. 101 to freeway/expressway facility through Mendocino County.

"Priority shall be given to projects, which result in highway improvements progressively from the Sonoma County line northward, unless specifically identified projects are proposed which mitigate critical safety or operational problems at locations to the north of the priority area." In addition to the considerable improvements to U.S. 101 that were previously programmed to continue into 1999, MCOG has identified the following specific projects as priorities for the development of the State System in Mendocino County.¹¹

- New Facility Priority No. 1 – MEN-101-KP 70.3/88.2 (PM 43.7/54.8), Construction of a four-lane bypass of Willits.
- New Facility Priority No. 2 – MEN 101-KP 14.8/20.9 (PM 9.2/13.0), Construction of a bypass of Hopland. Development of a PSR for this project is considered a local priority.
- New Facility Priority No. 3 – MEN-101-KP 20.9/28.3 (PM 13.0/17.6), Construction of the Crawford Ranch Road project, a four-lane freeway/expressway between the new four-lane expressway project in the Russian River Canyon and Hopland.
- No Assigned Priority – MEN-101-KP 7.6/12.9 (PM 4.7/9.2), construct four-lane expressway to complete gap in improvements.

HUMBOLDT COUNTY ASSOCIATION OF GOVERNMENTS (HCAOG)

HCAOG's 2000-2002 Regional Transportation Plan for Humboldt County recognizes the importance of Regional Transportation Planning as a critical process because it affects all residents. The RTP is based on a set of assumptions regarding the future needs of those residents, and includes projected growth, travel patterns, transit ridership, fuel and energy costs, and use of alternative travel modes. The mid-term and long-term projects on Route 101 listed in the RTP are as follows:¹²

- HUM-101-KP 91.7/94.6 (PM 57.0/58.8), Construct interchange and frontage roads at SR 36 junction (Phase I)
- HUM-101-KP 128.1/135.9 (PM 79.6/84.5) Eureka/Arcata 101 Corridor Improvement project, Project Approval and Environmental Document phases.
- HUM-101-KP 144.2/144.4 (PM 89.6/89.7) Replace bridge at Mad River and improve interchange (a Candidate SHOPP Project).
- HUM-101-KP 127.4/128.1 (PM 79.2/79.6) Widen 4th and 5th Streets in Eureka for addition of left-turn lanes onto V Street. Add travel lanes and increase shoulder width on V Street and optimize traffic signals.
- HUM-101-KP 125.5/128.1 (PM 78.0/79.6) Upgrade 5th and "R" intersection in Eureka (a Programmed SHOPP Project)

¹¹ Mendocino Council of Governments Regional Transportation Plan, 1996, Policy Element, page 18

¹² 2000-2002 Regional Transportation Plan of Humboldt County, Action Element, Tables IV-1 and IV-2

DEL NORTE LOCAL TRANSPORTATION COMMISSION (DNLTCO)

The 2002 Del Norte County Regional Transportation Plan (RTP) contains goals, policies, and objectives related to the state highway system.¹³ These include public transportation, non-motorized transportation, aviation, highways/streets/roads, goods movement, tele-transportation and pipeline transmission, transportation system management, recreational travel, and integrated land use, air quality, and transportation planning. The following short-term highway improvement project on Route 101 is listed in the RTP:

- DN-101-KP 44.3/44.9 (PM R27.5/R27.9), construct southbound onramp at Washington Blvd.

The 2002 Del Norte County RTP included the following goal and related policies for improvement of the State Highway System:

GOAL: SUPPORT MAINTENANCE AND IMPROVEMENT OF THE HIGHWAY, ROADWAY AND STREET SYSTEM TO ADEQUATELY MEET LOCAL, REGIONAL AND INTERREGIONAL TRANSPORTATION NEEDS.

The policies contained in the RTP to guide future decisions in support of this goal include:

- active encouragement of new facility and operational improvement projects that focus on maintaining and upgrading the region's existing transportation routes;
- support of the operation of the Service Authority for Freeway Emergencies (SAFE) Call Box System;
- support planning for and implementation of operational and safety improvements to state highways;
- support the continued maintenance and improvement of the local road system;
- support corridor preservation for highways and intermodal corridors such as bikeways and pedestrian trails; and
- development of facilities for improved access into the county via Highway 101 and 199.

VII. AREAS OF CONCERN

The following areas of concern on Route 101 are based on an analysis of level of service (calculated using the 2000 Highway Capacity Manual) and collision history:

1. A segment is considered to be a "level of service concern" if the concept level of service (LOS) will not be achieved under present or future traffic conditions or the segment operates at capacity during peak hour.
2. A segment is considered to be a "safety concern" if the total collision rate for a five-year period for that segment exceeds one and one-half times the Statewide average for similar facilities.

¹³ 2000 Del Norte County Regional Transportation Plan, Policy Element, Chapter 5, Table 6-9, Highway/Streets/Roads

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Level of Service Concerns

Listed in Table IV below are the Route 101 segments with existing or future level of service concerns.

**TABLE IV
LEVEL OF SERVICE CONCERNS**

| POST MILE | LOCATION | EXISTING FUTURE |
|---|--|--------------------|
| MEN-101-KP 9.3/28.3 (PM 5.8/17.6) | No. of SON/MEN Co. line to so. of Ukiah | Future |
| MEN-101-KP 70/76.4 (PM T43.5/47.50) | So. of Willits to No. of Willits City Limits | Existing |
| MEN-101-KP 104.1/131.0 (PM 64.7/81.4) | So. of Laytonville to Bell Springs Road | Existing |
| MEN-101-KP 146.8/161.4 (PM T91.2/100.3) | Jct. Route 1 at Leggett to Red Mtn. Cr. | Future |
| HUM-101-KP 120.4/128.4 (PM 74.8/79.8) | So. of Eureka to Eureka Slough Bridge | Existing |
| HUM-101-KP 128.4/130.1 (PM 79.8/85.8) | Eureka Slough Bridge to Jct. Rte. 255 | Future |

Safety Concerns

The following segments have collision rates exceeding one and one-half times the statewide average, based on similar facilities:

- **MEN-101-KP 131.0/146.8 (PM 81.4/T91.2)** [Bell Springs Rd. to Jct. Rte. 1 at Leggett]
- **HUM-101-KP T0.0/R9.0 (PM T0.0/R5.6)** [MEN/HUM Co. line to No. of Richardson Grove]
- **HUM-101-KP R9.0/120.4 (PM R5.6/74.8)** [No. of Richardson Grove to So. of Eureka]
- **DN-101-KP M0.0/R5.8 (PM M0.0/R3.6)** [HUM/DN Co. line to Kamp Klamath]
- **DN-101-KP 20.1/41.4 (PM 12.5/25.7)** [Wilson Creek to So. of Crescent City].
- **DN-101-KP 41.4/43.8 (PM 25.7/27.2)** [So. of Crescent City to no. of Crescent City]

In addition, the Eureka-Arcata Corridor segment **HUM-128.4-KP /130.1 (PM 79.8/85.8)** between the Cities of Eureka and Arcata contains intersections where collision rates exceed one and one-half times the statewide average.

As previously noted, the District has an established collision surveillance and monitoring program, which identifies locations with collision concerns and recommends safety improvements when warranted.

VIII. IMPROVEMENTS NECESSARY TO ACHIEVE THE ROUTE CONCEPT

Table V on the following page lists the improvements necessary to achieve the route concept.

Depending on the level of funding made available, varying levels of improvement can be expected during the 20-year period. In many areas, no improvements will be possible without significantly increased funding levels.

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The total cost of improvements to achieve the route concept is estimated at approximately \$550 million in 2001 dollars. This amount does not include the Eureka Freeway Bypass Project (HUM-101-KP 120.4/138.1 (PM 74.8/85.8) which would not be considered unless requested by the Humboldt County Association of Governments (HCAOG).

In addition to new facility improvements listed, safety and operational improvements will be considered as necessary. Historically, improvement priorities have generally been from south to north on Route 101.

TABLE V
IMPROVEMENTS NEEDED TO MEET THE ROUTE CONCEPT
(All four-lane freeway or expressway)

| COUNTY ROUTE 101 | PROJECT LOCATION KP | PM | DESCRIPTION | APPROXIMATE CONSTRUCTION COST IN 2000 \$ |
|------------------------|------------------------|-----------|---|--|
| MEN | 14.8/28.3 | 9.2/17.6 | Hopland Bypass & North | \$180 MILLION |
| MEN | 70.0/82.6 | 43.5/52.3 | Willits Freeway Bypass | \$140 MILLION |
| MEN | 82.6/88.8 | 52.3/55.2 | Willits North | \$26 MILLION |
| MEN | 104.1/130.9 | 64.7/81.4 | Laytonville Bypass & North | \$118 MILLION |
| HUM | 120.4/138.1 | 74.8/85.8 | Eureka Freeway Bypass & Eureka-Arcata Corridor ¹⁴ | \$315 MILLION (\$25 MILLION Corridor) |
| DN | 50.2/74.8 | 31.3/46.5 | Route 199 to the CA/OR border | \$62 MILLION |

IX. TRANSIT AND HIGH OCCUPANCY VEHICLE (HOV) CONSIDERATIONS

On Route 101, transit services are provided in the urbanized areas of Mendocino, Humboldt, and Del Norte Counties. Besides Greyhound and Amtrak, the most successful fixed-route providers operate in the more densely populated areas.

Regional transit providers in the Route 101 corridor include:

AMTRAK (feeder bus) provides dedicated bus service through District 1 on Route 101 from Arcata on the north to the City of Martinez in Solano County, the nearest Amtrak train station, for passengers using the bus in combination with train travel, Caltrain, or Metrolink. The service is provided by contract with Frontier Tours on Dina-Marco Polo buses with a seating capacity of 37.

Greyhound Bus provides service through the District along the Route 101 corridor as well as along other Routes in the District.

¹⁴ The Eureka Freeway Bypass (HUM-101-PM 74.8/85.8) four-lane freeway/expressway concept programming would not be considered unless requested by the Humboldt County Association of Governments.

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IN MENDOCINO COUNTY (from draft Mendocino RTP Feb 2002)

Mendocino Transit Authority (MTA) is a Joint Powers Agency (JPA) that was formed by the County of Mendocino and the Cities of Fort Bragg, Point Arena, Willits, and Ukiah. The JPA is responsible for the daily operation of the bus system and related policy decision-making. MTA also contracts with several senior centers for transportation of elderly and persons with developmental disabilities, and with a health center for general public medical transportation.

IN HUMBOLDT COUNTY

Humboldt Transit Authority (HTA) is a Joint Powers Authority comprised of representatives from Humboldt County and the Cities of Arcata, Eureka, Fortuna, Trinidad, and Rio Dell and provides administrative service to programs throughout Humboldt County.

- The Redwood Transit Service (RTS) program is delivered by HTA to its joint members and other contracting entities. RTS provides commuter bus service along the 101 corridor from Scotia in the south to Trinidad in the north (HUM-101-KP 83.36/162 (PM R51.8/100.7)). The RTS fleet consists of ten large transit vehicles and one smaller vehicle, all of which are lift equipped. Bikes are allowed on buses and passenger amenities include sixteen covered bus stop shelters.
- Southern Humboldt Rural Transit Service (the "Quail") was established in 1979 by the retired Senior Volunteer Program (RSVP), Seniors in Humboldt as Resources in Education (SHARE), and the County of Humboldt. This is a rural, demand-response, shared-ride, and door-to-door transit service for elderly and disabled individuals in the Southern Humboldt County region.

IN DEL NORTE COUNTY

Redwood Coast Transit (RCT) is a public transit service operated jointly by the City of Crescent City and the County of Del Norte. Currently RCT provides a Klamath commuter service, a Crescent City fixed route service, a Howland Hill fixed route service, and a Dial-A-Ride service.

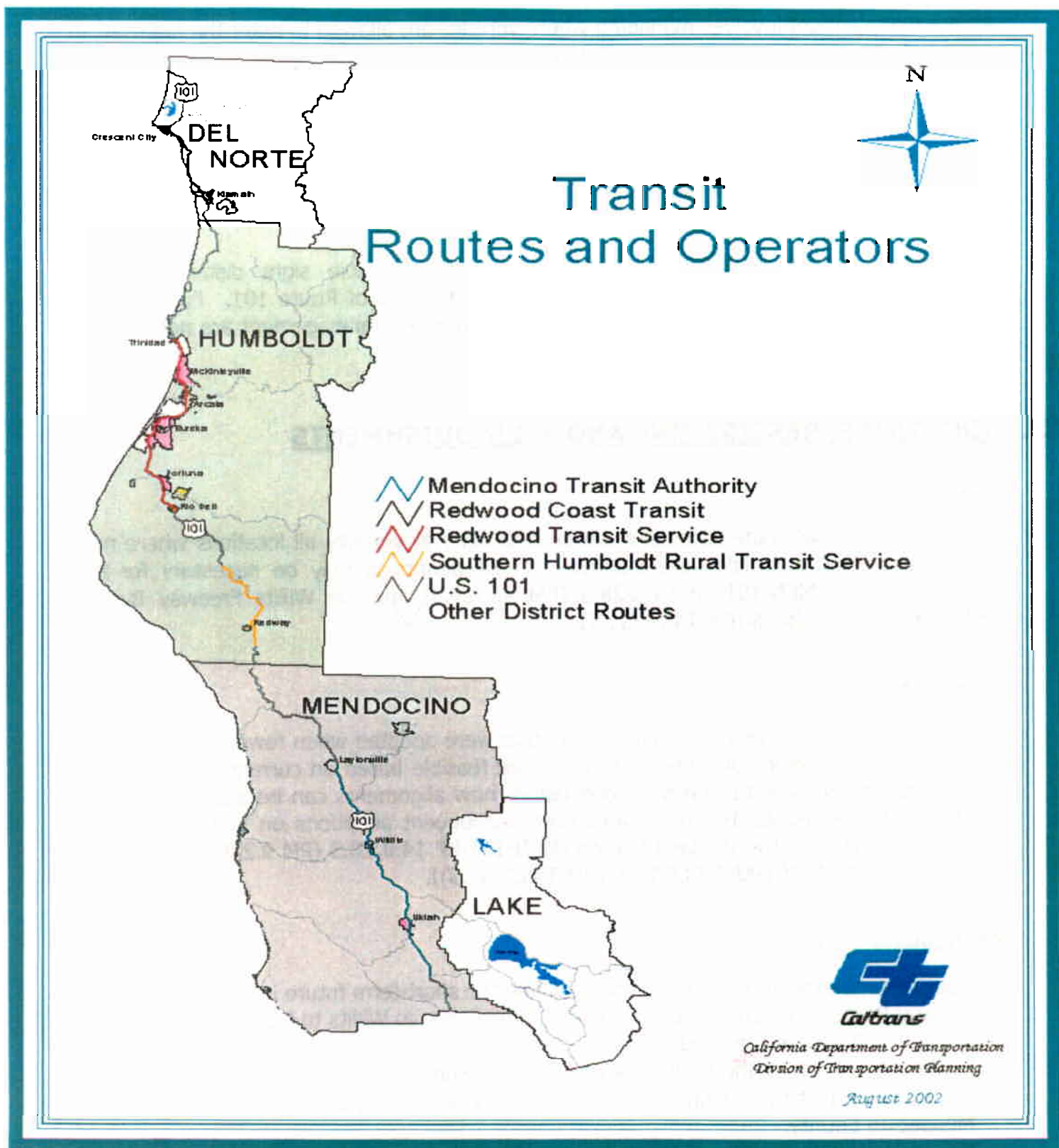
Table VI on the following page lists the service providers using Route 101 for transit trips.

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Table VI
Service Providers and Ridership on Route 101

| Operator | Frequency of service | Location | 2001 Yearly Ridership |
|-------------------------|---|---|-----------------------|
| MENDOCINO COUNTY | | | |
| MTA Route2 | Dial-a-Ride 8am-6pm M-F 10am-6pm Sat. | Ridgewood Summit to Reynolds Hwy (MEN-101-KP 66/81.7(PM 41/50.76)) | 27,476 |
| MTA Route 3 | Dial-a-Ride 7am-7pm M-F 10am-6pm Sat. | Cox-Schrader Rd to So. Calpella (MEN-101-KP 33.36/48.8 (PM 20.73/30.30)) | 85,012 |
| MTA Route 15 | 6 trips/day | Service between Willits and Laytonville (MEN-101-KP 72.7/110.6 (PM 45.2/68.7)) | 10,569 |
| MTA Rte. 20/21 | 12 trips/weekday 6 trips/ Sat. | Service between Ukiah and Willits (MEN-101-KP 37.7/75.6 (PM 23.44/46.97)) | 124,727 |
| MTA Route 30 | 2 trips/day M-F | Service between Redwood Valley and Ukiah | 15,029 |
| MTA Route 40 | 2 trips/day M-F | Service between Potter Valley and Ukiah | 24,653 |
| MTA Route 52 | 6 trips/day initiated 06/01 | Service between Hopland-Talmage-Ukiah (MEN-101-KP 17.6/37.7 (PM 10.93/23.44 | 268 |
| MTA Route 65 | 2 trips/day 7 days/ week | Service between Mendocino-Willits-Santa Rosa | 18,108 |
| HUMBOLDT COUNTY | | | |
| RTS | 35 trips/day M-F 6am-10:30pm | Service between Scotia and Trinidad (HUM-101-KP 83.36/162 (PM R51.8/100.7)) | 266,907 |
| ETS | | No routes using mainline 101 for transit | |
| A&MRTS | | No routes using mainline 101 for transit | |
| SHRTS | 8am-5pm MWF | Service between Benbow and Weott (HUM-101-KP 13.8/53.5 (PM R8.6/33.22) with twice monthly service to Fortuna/Eureka | 3,245 |
| DEL NORTE COUNTY | | | |
| RCT | 4 trips/day M-Sat | Service between Klamath and Crescent City (DN-101-KP 7.47/41.52 (PM R4.64/25.8)) | 3,900 |
| RCT | One-hour loop 6:30am-9:30pm M-Sat | Fixed route that runs a continuous one-hour loop in the greater Crescent City area | 14,000 |
| RCT | 6 trips/day M-Sat 6:30am-9:30pm | Howland Hill route from Sand Mine Rd into Crescent City, initiated 2/02 (DN-101-KP (PM 24.4/ 26.2)) | not yet avail. |

Enclosed as Map 4 on the following page is a depiction of Transit Routes and Transit Providers using Route 101 for Regional Transit in District 1.



X. ACCESS MANAGEMENT

Access management involves managing where vehicles are allowed to enter the highway, in order to improve highway operations and reduce collisions.

In Del Norte County for approximately ten miles from DN-101-KP 49.9/66.0 (PM 31.0/41.0) a corridor study, including access management issues, is being developed. Caltrans, the County of Del Norte, and the Del Norte County Local Transportation Commission are concerned that safe access continues in this area as traffic volumes and development increase.

While some access openings may have less than desirable sight distance, access management issues are generally not a concern along most of Route 101. Further, with little change in land use anticipated, issues related to access management are not likely to be a future concern.

XI. ADOPTIONS, RESCISSIONS AND RELINQUISHMENTS

Adoptions

It is anticipated that route adoptions will be necessary at virtually all locations where new freeway/expressway facilities are planned. Route adoptions may be necessary for the Hopland Bypass (MEN-101-KP 14.8/28.3 (PM 9.2/17.6) and the Willits Freeway Bypass (MEN-101-KP T70.0/82.6 (PM T43.5/51.3)).

Rescissions

Rescissions may be necessary for alignments that were adopted when fewer environmental factors were considered. Alignments that are not feasible based on current environmental law and rulings will need to be rescinded before new alignments can be adopted. In the short-term future, Route 101 rescissions (and subsequent adoptions on new alignments) may be necessary for the Hopland Bypass (MEN-101-KP 14.8/28.3 (PM 9.2/17.6)), and the Willits Bypass (MEN-101-KP T70.0/82.6 (PM T43.5/51.3)).







Relinquishments

Relinquishments expected to be considered within the short-term future include:

- Existing Route 101 from the Route 101/20 intersection in Willits to North of Willits (after the Willits Bypass is constructed).
- Existing Route 101 in the Hopland area (after the Hopland Bypass is constructed).
- Old Route 101 at the Sonoma/Mendocino County line is proposed to be relinquished to Mendocino County.
- Negotiations with the City of Ukiah and the County of Mendocino for the relinquishment of their respective portions of Route 222 (Talmage Road), intersecting Route 101 at the City of Ukiah, are being conducted.

ROUTE 101 RCR
APPENDIX A
Level of Service (LOS)

LOS

| | | <u>Description of Typical Traffic Conditions</u> | <u>Delay</u> | <u>Service Rating</u> |
|----------|---|--|---------------------|----------------------------------|
| A |  | Highest quality of service. Free traffic flow, low volumes and densities. Little or no restriction on maneuverability or speed, and a high level of comfort and convenience. | None | Excellent |
| B |  | Stable traffic flow – speed becoming slightly restricted. the presence of others in the traffic stream begins to be noticeable. Low resistance on maneuverability. | None | Very Good |
| C |  | Stable traffic flow, but less freedom to select speed, change lanes or pass. Comfort and convenience Decreasing as density increases. | Minimal | Good |
| D |  | Approaching unstable flow. Speeds tolerable, but subject to sudden and considerable variation. Reduced maneuverability, driver comfort and convenience. | Minimal | Adequate |
| E |  | Unstable traffic flow with rapidly fluctuating speeds and flow rates. Short headways, low maneuverability and low driver comfort and convenience. | Significant | Fair |
| F |  | Forced traffic flow. Speed and flow may drop to zero with high densities, Queues tend to form behind such locations since arrival flow exceed traffic discharges. | Considerable | Poor |

ROUTE 101 RCR

APPENDIX B Surface Transportation Assistance Act (STAA) Trucks

The Surface Transportation Assistance Act (STAA) trucks are becoming the standard throughout California. These long trucks provide an increased carrying capacity and some economic savings for the transportation industry and the general public. The following table lists the standards and restrictions for STAA trucks. A cross section of the trucks, which meet STAA standards, is shown on the following page.

| STAA TRUCK REGULATIONS | | |
|------------------------|--|-------------------------------|
| Width | CVC Section 35100 not to exceed 102 in. | Maximum not to exceed 120 in. |
| Height | CVC Section 35250 not to exceed 14 ft., double-deck buses not to exceed 14 ft. 3 in. | |
| Length | CVC Section 35400 no vehicle shall exceed 40 feet. | |
| " | CVC Section 35401.5 incorporates the National Network into the law. | |
| " | CVC Section 35401.5(a) states the length of the semitrailer in exclusive combination with a truck tractor does not exceed 48 feet. A semitrailer not more than 53' in length shall satisfy this requirement when configured with two or more rear axles, the rearmost of which is located 40 feet or less from the kingpin or when configured with a single axle, which is located 38 feet or less from the kingpin. | |
| Weight | CVC Section 35551 The maximum overall gross weight shall not exceed 80,000 lbs. | |
| " | The gross weight of each set of tandem axles shall not exceed 34,000 pounds. | |

Livestock Exception

A livestock carrier exception to the STAA truck regulation in District 1 was introduced as AB 1093. The following addendum was added to the vehicle code:¹⁵

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 35401.7 is added to the vehicle code to read:
35401.7.

- (a) The limitations of access specified in subdivision (d) of Section 35401.5 do not apply to licensed carriers of livestock when those carriers are directly enroute to or from a point of loading or unloading of livestock on those portions of Route 101 in the Counties of Del Norte, Humboldt and Mendocino from its junction with State Highway Route 1 near Leggett north to the Oregon border, if the travel is necessary and incidental to the shipment of the livestock.
- (b) The exemption allowed under this section does not apply unless all of the following conditions are met:
 - (1) The length of the truck tractor, in combination with the semitrailer used to transport the livestock, does not exceed a total of 70 feet.
 - (2) The distance from the kingpin to the rearmost axle of the semitrailer does not exceed 40 feet.
- (c) This section shall remain in effect only until January 1, 2002, and as of that date is repealed, unless a later enacted statute, that is enacted on or before January 1, 2002 deletes or extends that date.¹⁶

¹⁵ California Legislative Council's Digest, March 26, 1999

¹⁶ AB220 by Assemblywoman Virginia Strom-Martin, signed by the Governor on October 2, 2001, extends this exemption to January 1, 2004

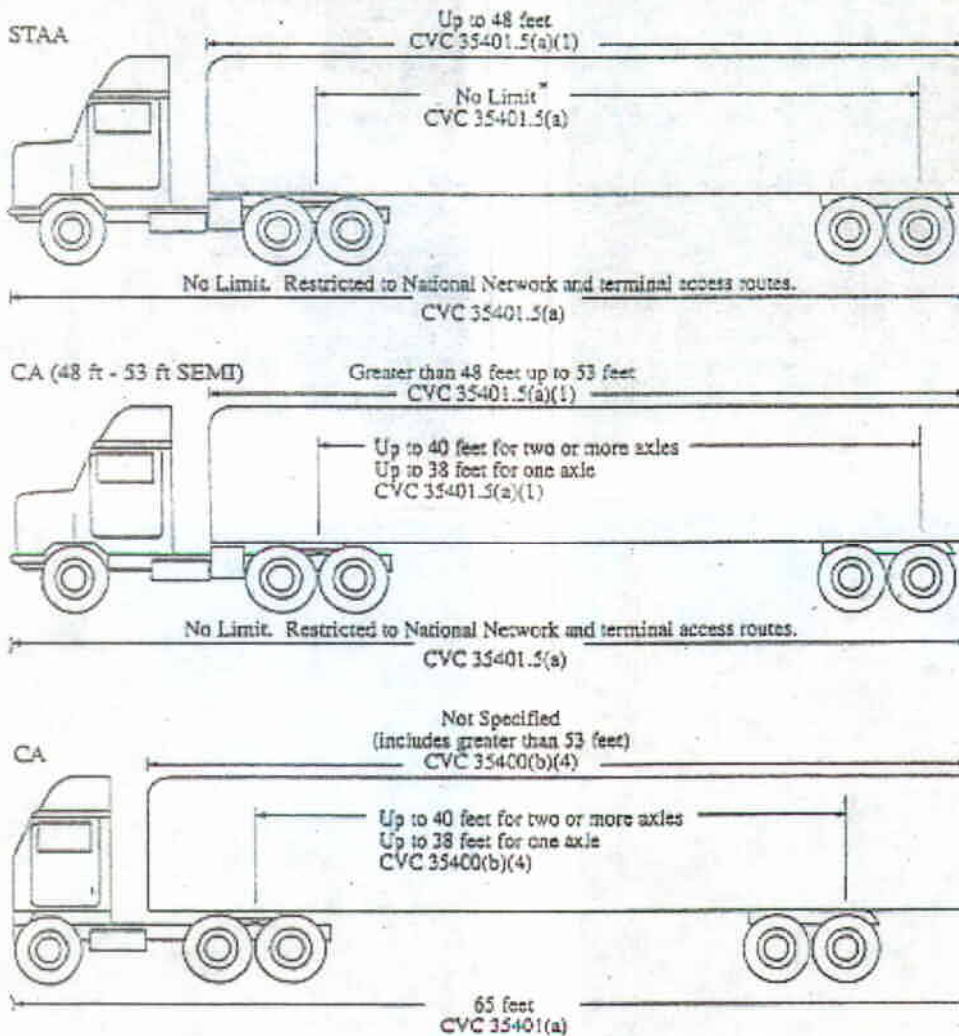
ROUTE 101 RCR

APPENDIX B

Surface Transportation Assistance Act (STAA) Trucks (continued)

| TRUCK TRACTOR-SEMITRAILER | | | |
|--|--|--|---|
| | Federal Law (STAA) | California Law (CVC) | California Law (CVC) |
| Semitrailer Length | Up to 48 ft | Greater than 48 ft up to 53 ft | Not specified (includes greater than 53 ft.) |
| Kingpin to Rearmost Axle Length | No limit | 40 ft for two or more axles 38 ft for one axle | 40 ft for two or more axles 38 ft for one axle |
| Overall Length | No limit. Restricted to National Network/ Terminal Access | No limit. Restricted to National Network/ Terminal Access | 65 ft limit on all highways |
| STAA-Surface Transportation Assistance Act of 1982 | | CVC-California Vehicle Code | |

**FIGURE 6. NATIONAL NETWORK AND CALIFORNIA LAW
TRUCK TRACTOR-SEMITRAILER**



ROUTE 101 RCR

Truck Tractor Semi-Trailer Restrictions **STAA Truck Restriction Locations on Route 101 in District 1**

1. **MEN-101-KP R160 (PM 100.1)** about 14 kilometers (9 miles) north of Leggett, near Red Mountain Creek: a large rock out cropping encroaches on the north bound shoulder at this location, resulting in STAA truck off-tracking. (Photograph A)
2. **HUM-101-KP 3.4/5.6 (PM 2.1/3.5)** about 13 kilometers (8 miles) south of Garberville, at Richardson Grove State Park: Route 101 is curvilinear at this location with minimal shoulders and Redwood trees encroaching on the shoulders. Extra-legal and STAA trucks must off track to negotiate this section. (photograph B)
3. **HUM-101-KP 125.6 (PM 78.03)** in the City of Eureka, at Broadway and 5th Street: North bound Route 101 makes a right turn onto 5th Street at this location, part of a one way couplet. Shoulder width is inadequate to accommodate STAA trucks at this location. (Photograph C)
4. **HUM-101-KP 179.9 (PM 111.8)** along Big Lagoon, about 16 kilometers (10 miles) south of the community of Orick: a short radius curve at this location results in STAA off-tracking into the opposing lane. (Photograph D)



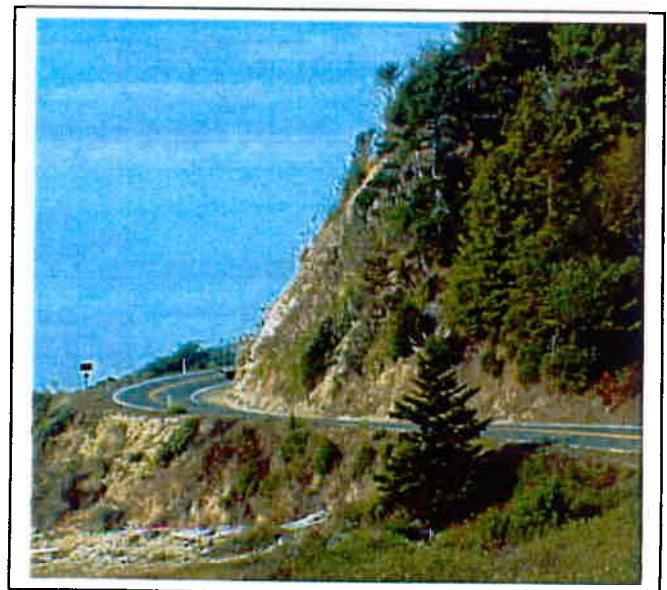
A



B



C



D